Digital signatures with Adobe

Adobe can facilitate a variety of electronic signature processes. One of them is digital signatures, which is a form of e-signing that requires a digital certificate issued by a certificate authority to verify the signer's identity. Industries and governments choose digital signatures when they want the strongest security for sensitive data. This article provides an overview of the technology and shows you how digital signatures work using Adobe Document Cloud eSign services and Adobe Acrobat.

Overview of electronic and digital signatures

Electronic signatures (e-signatures)

- **Definition:** An e-signature can be as basic as a typed name or a digitized image of a handwritten signature.
- **Legality:** Since the ESIGN ACT of 2000, electronic signatures have been just as legally binding in the US as handwritten signatures. Most countries follow this model; the EU is one exception.
- **Use cases:** Almost any group or entity with agreements or transactions to sign, such as Sales, HR, and Procurement.
- **Adobe solutions:** Document Cloud eSign services, Acrobat, Reader
  - Senders use Document Cloud eSign services for creating, sending and filing agreements; while signers can use Document Cloud, Acrobat, or Reader.

Digital signatures

- **Definition:** Digital signatures are a type of e-signature that includes a digital certificate issued by a third-party for independent identity validation.
- **Legality:** Digital signatures are the most secure form of e-signature. As such, they:
  - Fulfill the requirements of the SAFE (Signatures & Authentication For Everyone) BioPharma industry standard for pharmaceutical companies
  - Comply with ETSI PAdES standard (PDF Advanced Electronic Signatures) for companies signing agreements in the European Union
  - Note that there are country-specific regulations that may require the use of additional software or hardware, depending on use case. See the Adobe Global Guide for eSignature Law.
- **Use cases:** Companies doing business in the EU, pharmaceutical, medical, and other regulated industries.
- **Adobe solutions:** Document Cloud eSign services, Acrobat, Reader
  - Adobe has been capable of facilitating qualified digital signatures (per the European directive) since 2008.
  - Document Cloud eSign services now brings digital signatures into the e-signing workflow: Document Cloud handles the creation, distribution and filing of agreements for signature, in conjunction with Acrobat or Reader, which handle the certification and validation of digital signing.
  - Adobe maintains an Adobe Approved Trust List (AATL) of 47 valid certification service providers worldwide to ensure that customers use qualified certificates recognized by our products.

Using digital signatures

Digital signatures are easy to use, but they require a few steps to set up:

- **Senders** must enable digital signatures in the Document Cloud eSign services account settings. Contact Customer Support or your dedicated Customer Success Manager to do so.
- **Signers** need a digital certificate that's recognized by Acrobat. See Obtaining a digital certificate below.

Steps for senders:

Step 1—Prepare your document as usual in Document Cloud eSign services. Add a digital signature field by selecting Digital Signature in the Signature Fields tab within the drag-and-drop authoring environment.

Alternatively, if you are using text tags to create form fields, add the digital signature text tag *es_:signer:digitalsignature*—instead of the regular e-signature text tag, as shown below.

Digital Signature field:	Electronic Signature field:
{{_es_:signer:digitalsignature}}	{{_es_:signer:signature}}

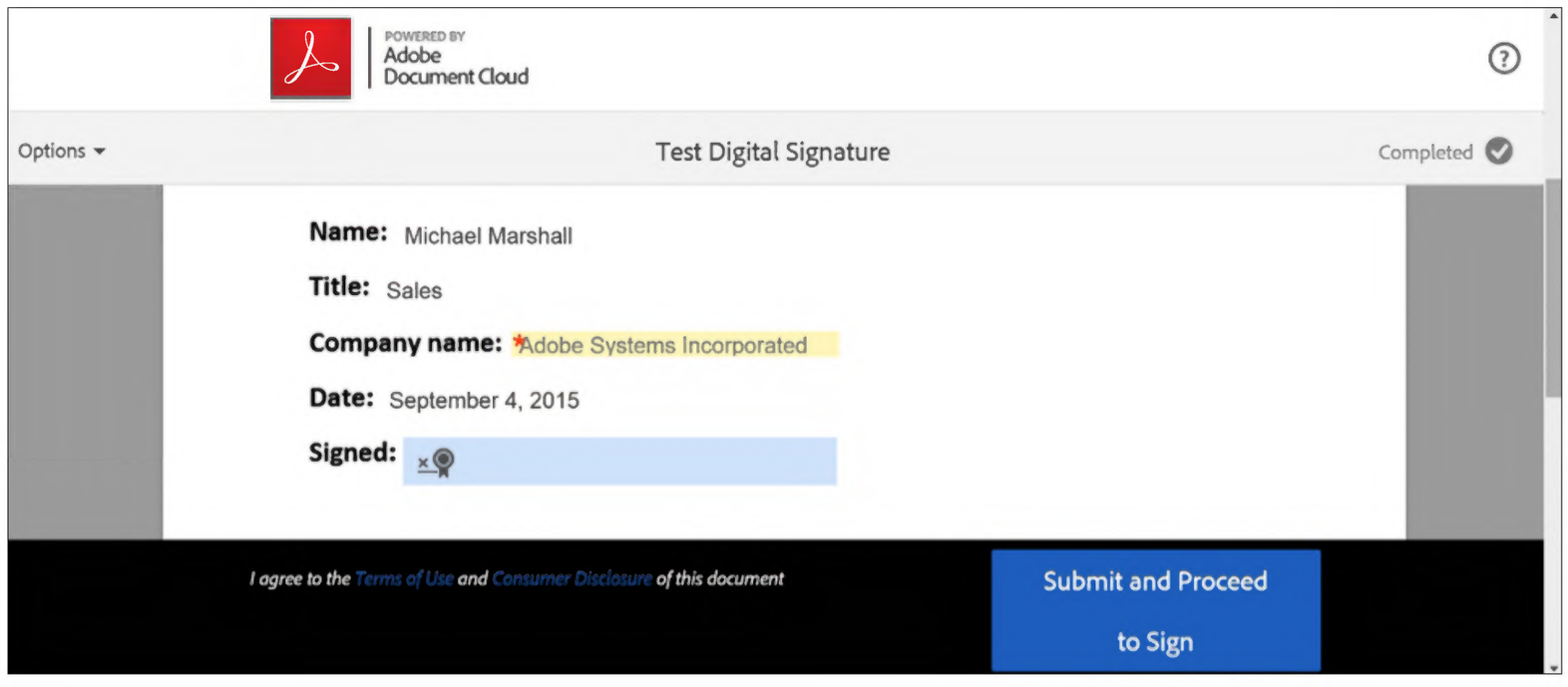
Step 2—Send your document for signature. Once the document has been successful digitally signed, you will receive a notification.

Notes for senders:

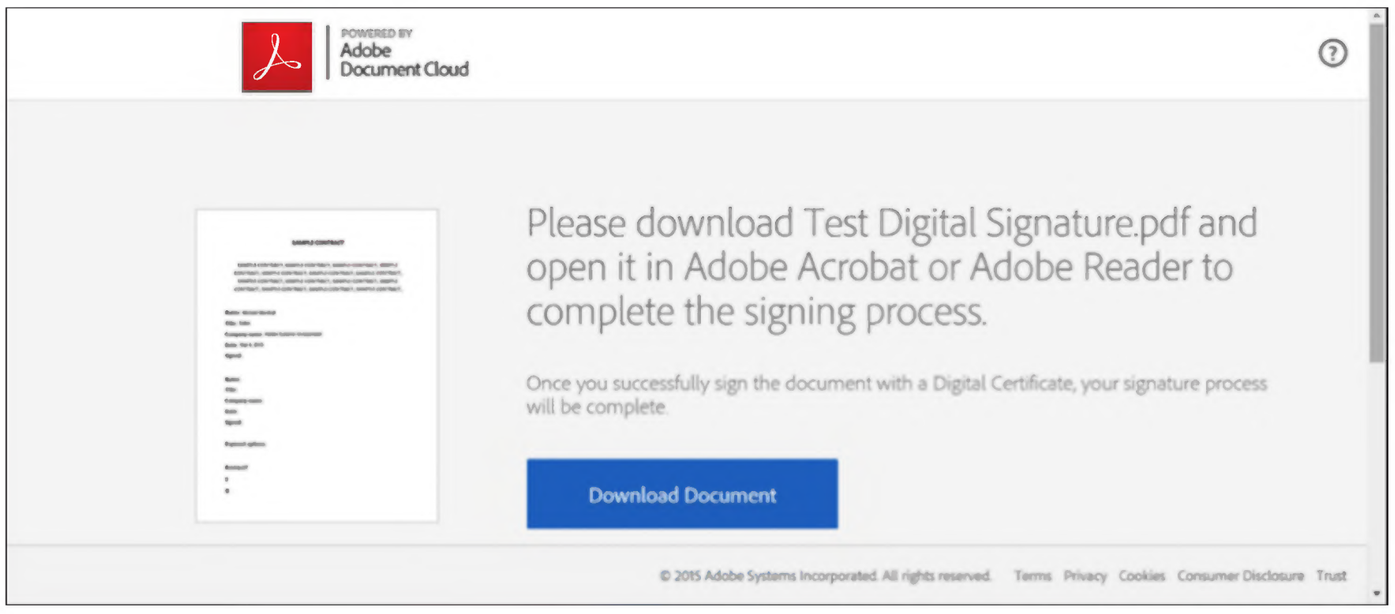
- A workflow can include both electronic and digital signatures. The type of signature you request is set up per transaction; it's not a system-wide setting.
- If using the Acrobat solution, once the document is signed, Acrobat will automatically route the agreement back to Document Cloud eSign services and senders will receive an email with a copy of the digitally signed document.

Steps for signers:

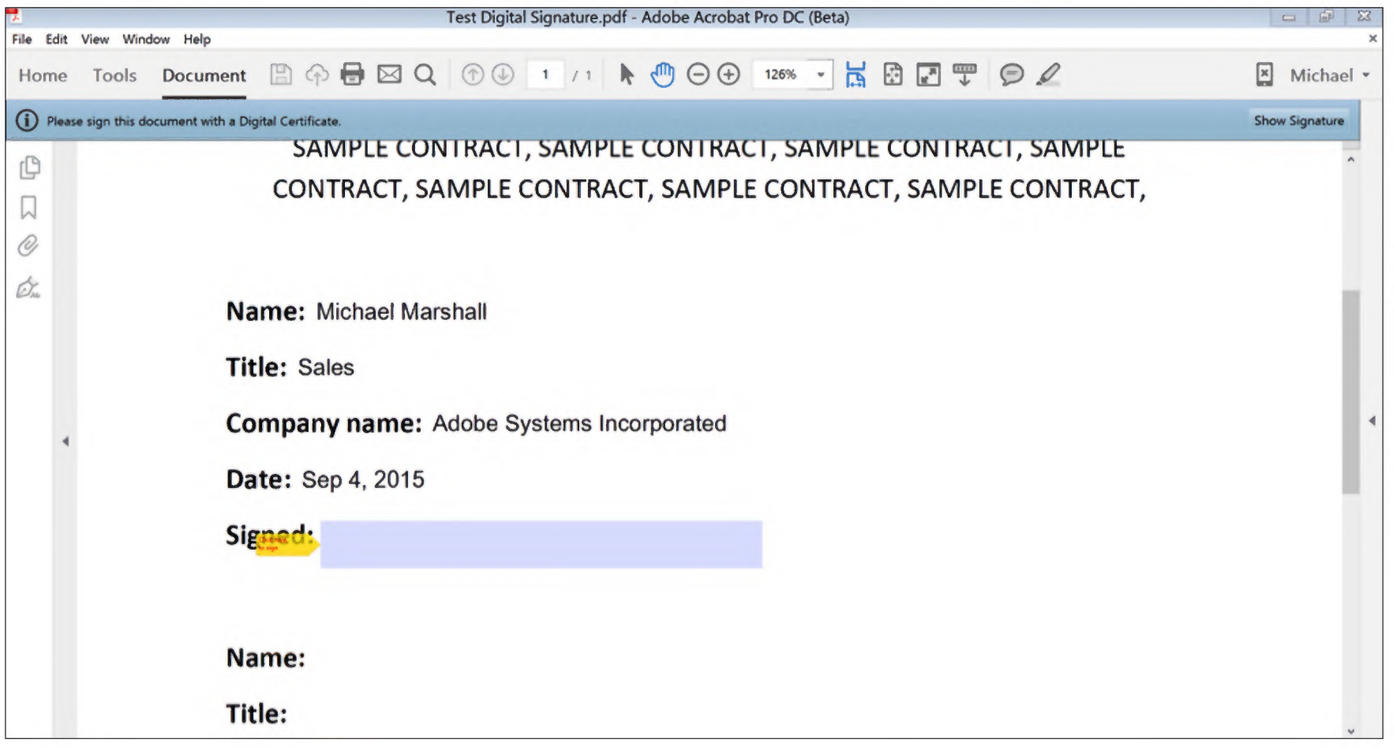
Step 1—Click the link in the Adobe e-sign email to open the document. Fill out assigned text fields, and then click Submit and Proceed to Sign.



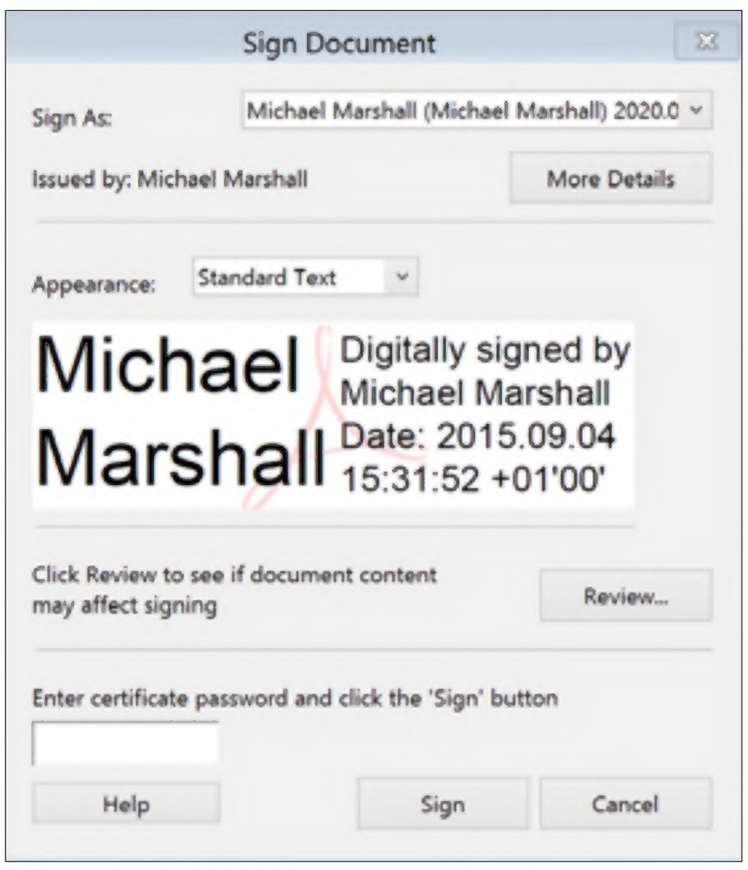
Step 2—You will be prompted to download the document using Adobe Acrobat or Reader to complete the signing process. If you don't have Reader installed already, you will be prompted to download it for free.



Step 3—Click in the signing box to add in your digital signature.



Step 4—If you have a digital signature that you've used before, it will appear in the Sign As drop-down. You will need to input your password to certify it, and then click Sign. If you have a new digital signature, you can add it to the drop-down list in a few steps. Learn how, below.



Step 5—Once the digital certificate has been successfully applied, Acrobat will automatically synch with Document Cloud eSign services and update the audit trail. Sender and all signers will then receive a copy of the digitally signed agreement as an email from Adobe.

Notes for signers:

- The signer can also initiate the signing process from the Adobe Document Cloud website or via an API integrated into another business system (for example, Salesforce).
- Any data capturing other than the signature is completed in the cloud, through the browser, and once data capture is complete, a PDF copy is available for download to be opened in Adobe Reader or Acrobat.

Obtaining a digital certificate

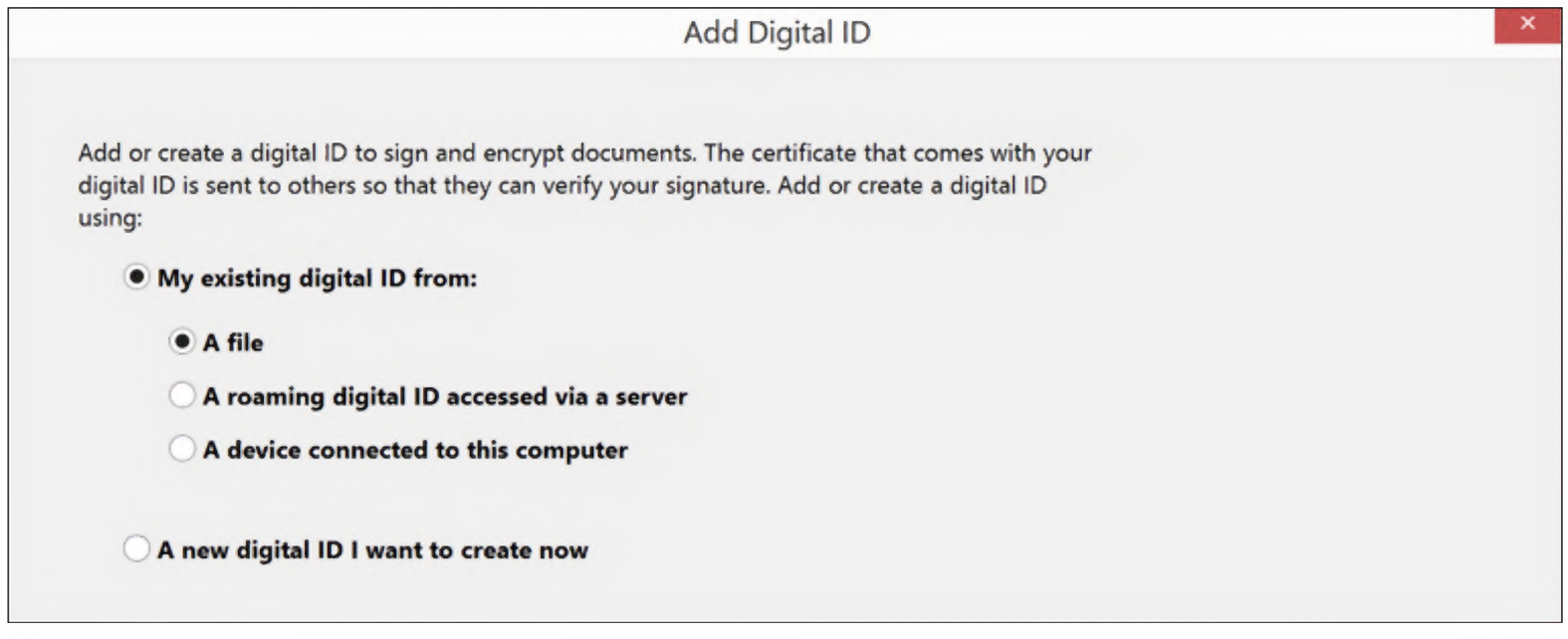
First, check to see if your company already has an assigned certificate provider. If not, you can purchase a digital certificate directly from a provider. By default, Acrobat recognizes digital signatures from certificate providers on the Adobe Approved Trust List, below. Acrobat can be configured to recognize digital certificates from other parties by managing the trusted identity settings. Learn how here.

When you purchase a digital certificate, you will download the certificate as a file to your computer.

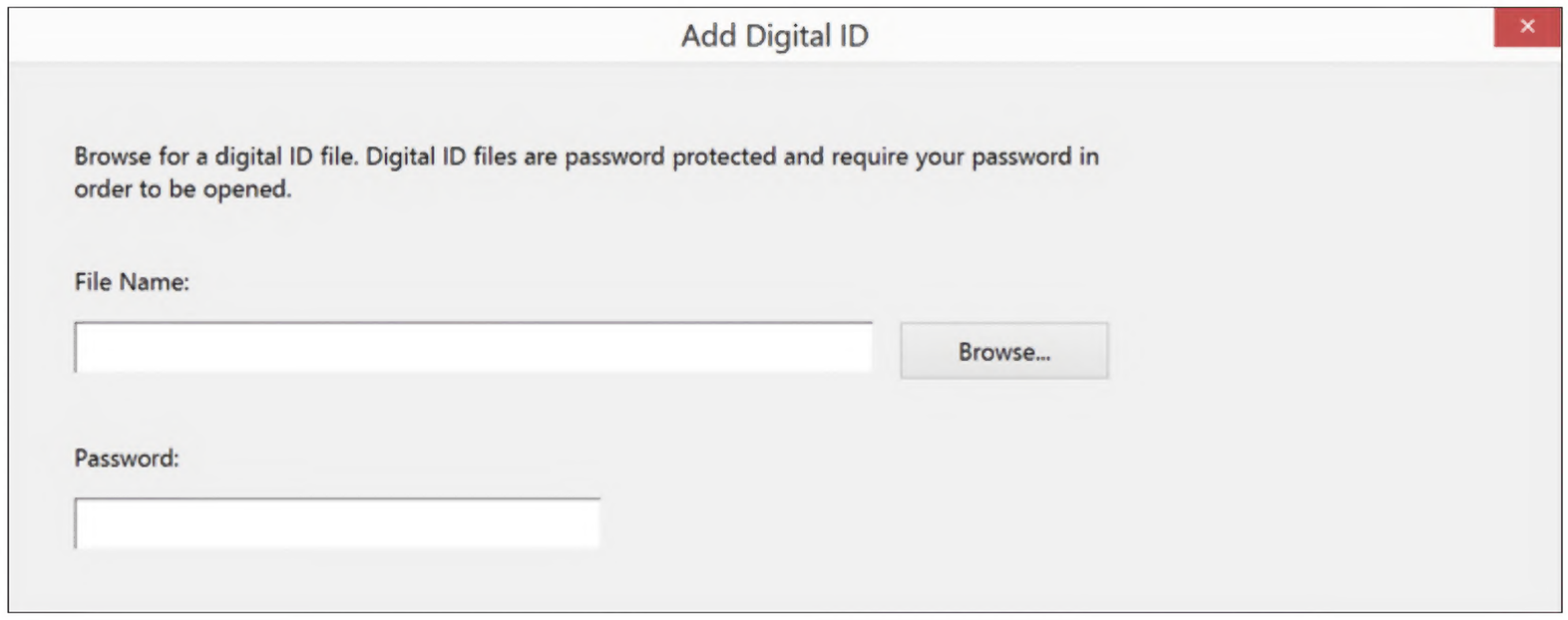
To add a new digital signature to the Sign As drop-down list:

1. When you reach Step 4 in the signing process above, choose New ID from the Sign As drop-down.

2. If you have downloaded the digital certificate as a file, which is most often the case, then choose A File from the options provided.

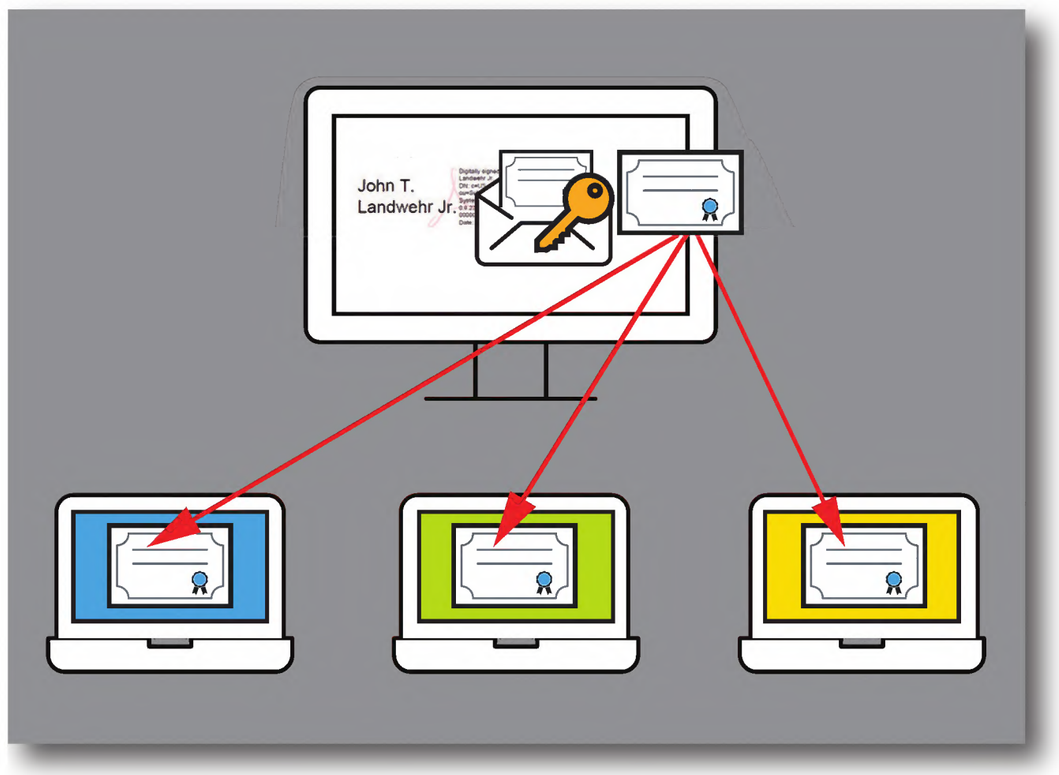


3. Browse for the file, and input the password you set up at purchase of the certificate. The certificate will appear in the Sign As field and will be accessible there in the future.



What's in a certificate?

Certificates contain a public key and a private key. The private key is seen and used only by the signer, and the public key is what Adobe will use to validate the signature—matching the two up.



Other options

If you don't want signers to have to purchase a digital certificate just to sign your contract, you can add extra authentication to an e-signature workflow by setting a password on the document for every signer. You might also want to include language in the agreement that clearly states that both parties agree to sign using electronic signature as the method of transacting.

Adobe Approved Trust List

Country	Certificate Provider
European Wide	CertEurope
	Cryptolog
International wide	Dictao (Safran Morpho)
	DigiCert
	Entrust Datacard
	GlobalSign
	OpenTrust
	SAFE BioPharma
	Symantec
	Wisekey
Bermuda	Quo Vadis

Country	Certificate Provider
Canada	Notarius
China	GDCA
	SECOM
	SHECA
	WoSign
Czech Republic	Certification Authority
France	Almerys
	Atos Worldline
	Certinomis
	Chambersign
Germany	D-Trust
	Trust Center
Hong Kong	Digi-sign
	HongKong Post e-cert
Hungary	Netlock
India	CCA
Israel	Comsign
Italy	Actalis
	Aruba PEC
	Camerfirma
	InfoCert
	Intesa
	Namirial
Japan	GPKI
	LGPKI
Luxemburg	Luxtrust
Netherlands	Logius
Norway	Buypass
Poland	Certum
Portugal	Digitalsign
	Multicert
South Africa	Lawtrust
	Trust Centre
Spain	Certicamara
	Firmaprofesional
	Izenpe
Switzerland	BIT
	Swisscom
	Swiss sign
USA	FPKIPA

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